


Impervious Surfaces in NH's Coastal Watershed

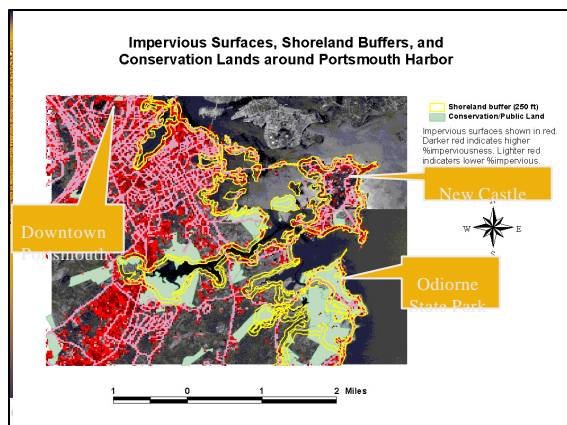

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New Hampshire Estuaries Project
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Impervious Surfaces Mapping

- ◆ Contract with UNH for \$28,000 to map the 760,000 acre watershed (~\$0.04/acre)
- ◆ Landsat TM imagery from 1990 and 2000
- ◆ 30 meter resolution
- ◆ Analyzed by subpixel processing
- ◆ Verified by groundtruthing and Iconos 1-meter imagery


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Impervious Surface Indicators


1. Number of subwatersheds with >10% impervious surface coverage
2. "Imperviousness per capita" for towns
 - Ranking relative to average
 - Increases between 1990 and 2000

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Percentage of impervious surfaces in watersheds

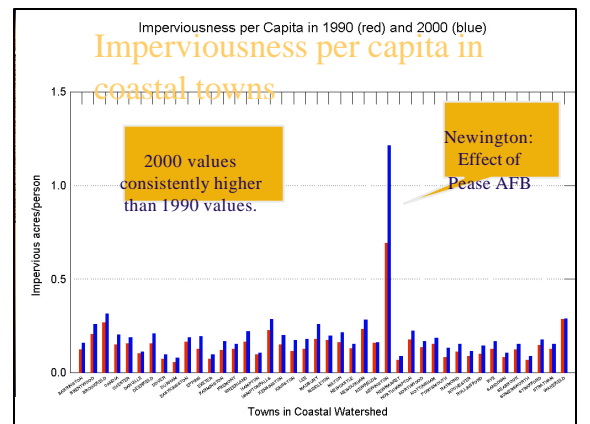
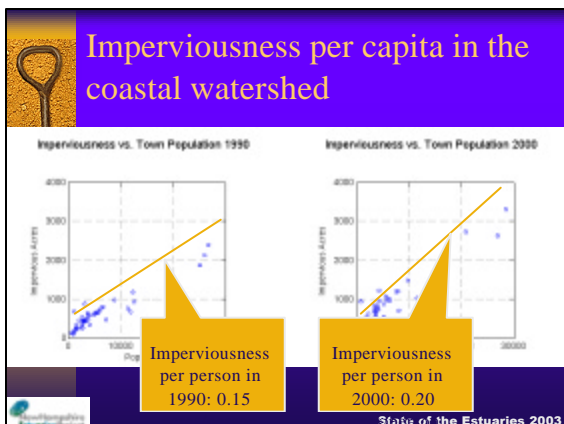
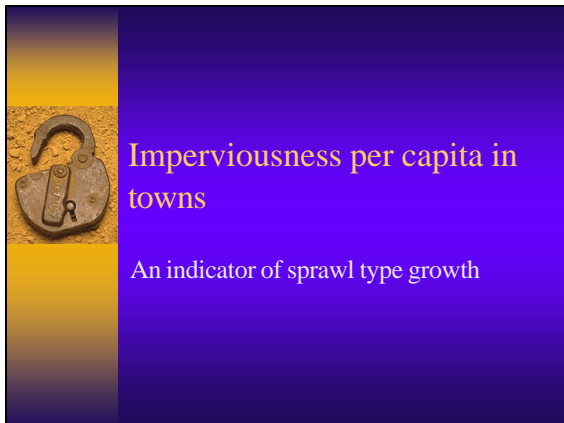
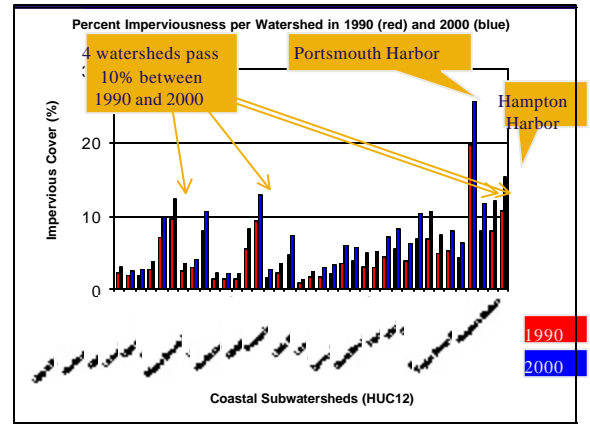
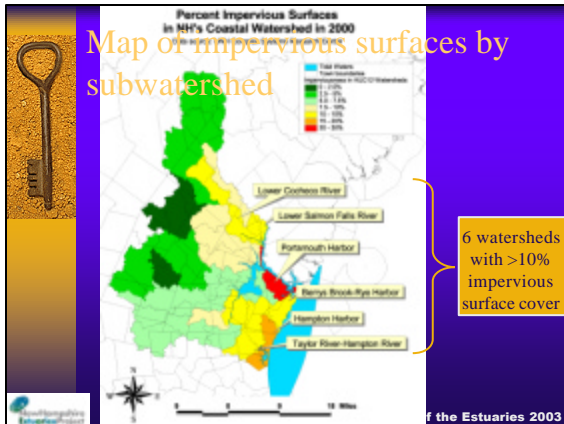
An indicator of potential water quality impacts



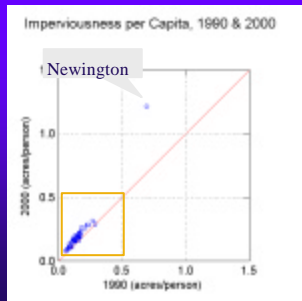
Percent imperviousness in watersheds

- ◆ In whole coastal watershed:
 - 1990: 4.7%
 - 2000: 6.8%
 - 11,154 acres of impervious surfaces created
- ◆ But, not uniform across whole watershed
 - 6 of 37 sub watersheds have >10% coverage.

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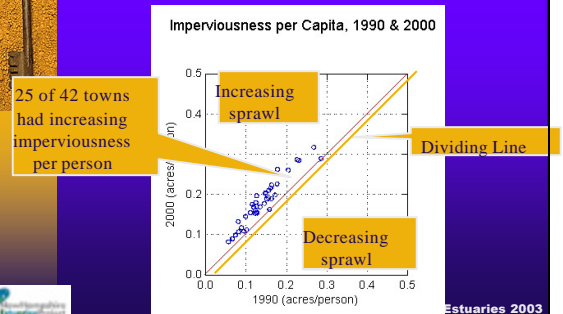


Imperviousness per capita in coastal towns



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Imperviousness per capita in coastal towns



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Results Summary

- ◆ 6 of 37 coastal subwatersheds already >10% impervious
- ◆ Strong correlation between impervious surfaces and population
- ◆ 25 of 42 towns with increasing imperviousness per capita.

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Management Strategies

- ◆ Stormwater management for watersheds with >10% imperviousness
- ◆ Slow growth of impervious surfaces in watersheds with <10% imperviousness
- ◆ Target towns with high or growing imperviousness per capita for planning outreach

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For more information

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